WHAT IS CLAIMED IS:

1. An apparatus for shaping the speech signal in consideration of its energy distribution characteristics, comprising:

an encoder for receiving and encoding an unvoiced speech or background noise, dividing it into a plurality of frequency bands according to its characteristics, performing comparison of energies of the frequency bands, and setting energy intensity flags according to the comparison result; and

a decoder for shaping the data encoded by the encoder and the energy intensity flags.

2. The shaping apparatus as claimed in claim 1, wherein the encoder comprises:

an FFT unit for receiving the speech signal corresponding to an unvoiced speech or background noise and Fourier-transforming it, to obtain energy in the frequency domain of the speech signal;

an unvoiced energy comparator for, when the speech signal transformed by the FFT unit is the unvoiced speech, dividing the unvoiced speech into a plurality of frequency bands according to its energy distribution, carrying out comparison of energies of the bands, and setting energy intensity flags according to the comparison result; and

a background noise energy comparator for, when the speech signal transformed by the FFT unit is the background noise, dividing the background noise into a plurality of frequency bands according to its energy distribution, carrying out comparison of energies of the bands, and setting energy intensity

flags according to the comparison result.

3. The shaping apparatus as claimed in claim 2, wherein the energy intensity flags set by the unvoiced energy comparator or background noise energy comparator comprise:

a maximum energy flag (Maxflag) set to the band having the maximum energy among the plurality of bands;

a minimum energy flag (Minflag) set to the band having the minimum energy among the plurality of bands; and

an energy flag (Maxflag=4) set when energy is uniformly distributed for the plurality of bands.

4. The shaping apparatus as claimed in claim 1, wherein the decoder comprises:

a quantized gain information part having quantized gain information of the input signal;

a random number vector part outputting a signal that is added to the quantized gain information from the quantized gain information part for the purpose of shaping the input signal;

a filter selector for distinguishing the input signal into the unvoiced speech and background noise, and selecting a filter corresponding to each of the unvoiced speech and background noise; and

a shaping unit for differentially shaping the signal, obtained by adding the signal from the quantized gain information part to the signal from the

random number vector part, and the input speech signal through the filter selector according to the energy comparison result obtained by the encoder.

5. A method for shaping the speech signal on the unvoiced speech or background noise in consideration of its energy distribution characteristics, comprising:

(a) Fourier-transforming the speech signal to obtain energy in its frequency domain;

(b) determining whether the Fourier-transformed speech signal is an unvoiced speech or background noise, dividing it into a plurality of frequency bands according to its frequency, and comparing energies of the divided bands; and

(c) setting energy intensity flags using the comparison result, and shaping the speech signal according to its characteristics.

6. The shaping method as claimed in claim 5, wherein (b) comprises: comparing the energies of the frequency bands, differently divided according to whether the input speech signal is the unvoiced speech or background noise, to find the band having the maximum energy, the band having the minimum energy, and whether the energies are uniformly distributed.

7. The shaping method as claimed in claim 5, in the case that the input speech signal is the unvoiced speech in (c), further comprising:

comparing the energies of the plurality of bands and shaping the

speech signal excepting the band having the maximum energy and the band having the minimum energy; and

shaping the band with the maximum energy.

8. The shaping method as claimed in claim 5, in the case that the input speech signal is the background noise in (c), further comprising:

grasping the energy distribution for the component of the background noise, and comparing the energies of the frequency bands using a plurality of band signals other than the first band having a frequency at which the background noise is largely distributed;

shaping the first band; and

shaping that band when there is a band having greater energy than the first band from the comparison result.

9. The shaping method as claimed in claim 7, wherein interpolation is carried out for shaped bands with a filter factor divided into a plurality of bands for the purpose of removing frequency division that may occur during the shaping operation.

10. The shaping method as claimed in claim 8, wherein interpolation is carried out for shaped bands with a filter factor divided into a plurality of bands for the purpose of removing frequency division that may occur during the shaping operation.